

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An aqueous resin composition having gas barrier properties, which comprises

- (i) a polyurethane resin having a urethane group and a urea group in a total concentration of 25 to 60% by weight and having an acid group,
- (ii) a swelling an inorganic layered compound, and
- (iii) a polyamine,

wherein the polyurethane resin (i) is an aqueous polyurethane resin which comprises a residue of a polyisocyanate compound (A), a residue of a polyhydroxyalkanecarboxylic acid (B), and if any residue of a polyol compound (C), each of the residues (B) and (C) bonding to the residue of the polyisocyanate compound (A) through a urethane group for forming a prepolymer having an isocyanate group and a carboxyl group, and a residue of a chain-extension agent (D) which bonds to the prepolymer through at least a urea group to form a polyurethane having the carboxyl group, and the carboxylic group of the polyurethane is neutralized with a neutralizing agent, and the chain-extension agent (D) is at least one member selected from the group consisting of a diamine, hydrazine and a hydrazine derivative; the proportion of the total amount of components (B), (C) and (D) each having an active hydrogen atom is, as the total amount of the active hydrogen atom, about 0.8 to 1.2 mol relative to 1 mol of the isocyanate group of the polyisocyanate compound (A); and the polyisocyanate compound (A) contains at least one member selected from the group consisting of a xylylene diisocyanate and a hydrogenated xylylene diisocyanate;

the inorganic compound (ii) consists essentially of at least one swelling inorganic layered compound selected from the group consisting of a smectite group clay mineral and a mica group clay mineral;

the polyamine (iii) is at least one member selected from the group consisting of an alkylenediamine, a hydroxyl group-containing diamine, a polyalkylenepolyamine, an N-alkyl substituted alkylendiamine, an N-alkyl substituted polyalkylenepolyamine, an alicyclic polyamine, an aromatic polyamine, an adduct of the polyamine with an alkylene oxide and a urethane-modified polyamine; the polyamine (iii) is a component added to a dispersion of the swelling inorganic layered compound (ii), a dispersion containing the aqueous polyurethane resin

(i), or a dispersion containing the aqueous polyurethane resin (i) and the swelling inorganic layered compound (ii); and

the proportion of the acid group of the polyurethane resin (i) relative to the basic nitrogen atom of the polyamine (iii) is 3/1 to 1/2 as the equivalent ratio.

2. (Cancelled)

3. (Currently Amended) A resin composition according to claim 1, wherein the polyurethane resin (i) comprises the residue of the polyisocyanate compound (A), the residue of the polyhydroxyalkanecarboxylic acid (B), and a residue of a polyol compound (C), each of the residues (B) and (C) bonding to the residue of the polyisocyanate compound (A) through a urethane group for forming a prepolymer having an isocyanate group, and a carboxyl group, and the residue of the chain-extension agent (D) which bonds to the prepolymer through at least a urea group to form a polyurethane having the carboxyl group, and the carboxylic group of the polyurethane is neutralized with a neutralizing agent;

the polyisocyanate compound (A) contains at least one member selected from the group consisting of an aromatic polyisoeyanate, an araliphatic polyisocyanate and an alieyelie polyisoeyanate in a proportion of not less than 30% by weight in the polyisoeyanate compound a xylylene diisocyanate and a hydrogenated xylylene diisocyanate; and

the polyol compound (C) contains a polyol component having 2 to 8 carbon atoms in a proportion of not less than 90% by weight in the polyol compound.

4. (Cancelled)

5. (Original) A resin composition according to claim 1, wherein the swelling inorganic layered compound (ii) comprises at least one member selected from the group consisting of a water-swelling mica and a montmorillonite.

6. (Currently Amended) A resin composition according to claim 15, wherein the acid value of the polyurethane resin (i) is 16 to 50 mgKOH/g, and the amine value of the polyamine (iii) is 300 to 1500 mgKOH/g.

7. (Original) A resin composition according to claim 1, wherein the ratio of the swelling inorganic compound (ii) relative to the polyurethane resin (i) is 1/100 to 200/100 in terms of solid content.

8. (Previously Presented) A gas barrier laminated film comprising a base film, and a layer formed on at least one surface of the base film, wherein the layer comprises an aqueous resin composition recited in claim 1.

9. (Currently Amended) A gas barrier laminated film comprising a base film, and a layer formed on at least one surface of the base film, wherein the layer comprises an aqueous resin composition recited in ~~claim 2~~claim 1.

10. (Previously Presented) A gas barrier laminated film comprising a base film, and a layer formed on at least one surface of the base film, wherein the layer comprises an aqueous resin composition recited in claim 3.

11. (Currently Amended) A gas barrier laminated film comprising a base film, and a layer formed on at least one surface of the base film, wherein the layer comprises an aqueous resin composition recited in ~~claim 4~~claim 1.

12. (Previously Presented) A gas barrier laminated film comprising a base film, and a layer formed on at least one surface of the base film, wherein the layer comprises an aqueous resin composition recited in claim 5.

13. (Previously Presented) A gas barrier laminated film comprising a base film, and a layer formed on at least one surface of the base film, wherein the layer comprises an aqueous resin composition recited in claim 6.

14. **(Previously Presented)** A gas barrier laminated film comprising a base film, and a layer formed on at least one surface of the base film, wherein the layer comprises an aqueous resin composition recited in claim 7.

15. **(Currently Amended)** An aqueous resin composition having gas barrier properties, which comprises

- (i) a polyurethane resin having a urethane group and a urea group in a total concentration of 25 to 60% by weight and having an acid group,
- (ii) ~~a swelling~~ an inorganic layered compound, and
- (iii) a polyamine,

wherein the polyurethane resin (i) is an aqueous polyurethane resin which comprises a residue of a polyisocyanate compound (A), a residue of a polyhydroxyalkanecarboxylic acid (B), and if any residue of a polyol compound (C), each of the residues (B) and (C) bonding to the residue of the polyisocyanate compound (A) through a urethane group for forming a prepolymer having an isocyanate group and a carboxyl group, and a residue of a chain-extension agent (D) which bonds to the prepolymer through at least one urea group to form a polyurethane having the carboxyl group, and the carboxylic group of the polyurethane is neutralized with a neutralizing agent, and the chain-extension agent (D) is at least one member selected from the group consisting of a diamine, hydrazine and a hydrazine derivative, the proportion of the total amount of components (B), (C) and (D) each having an active hydrogen atom is, as the total amount of the active hydrogen atom, about 0.8 to 1.2 mol relative to 1 mol of the isocyanate group of the polyisocyanate compound (A); and the polyisocyanate compound (A) contains at least one member selected from the group consisting of a xylylene diisocyanate and a hydrogenated xylylene diisocyanate;

the inorganic compound (ii) consists essentially of at least one swelling inorganic layered compound selected from the group consisting of a smectite group clay mineral and a mica group clay mineral;

the polyamine (iii) is at least one member selected from the group consisting of an alkylenediamine, a hydroxyl group-containing diamine, a polyalkylenepolyamine, an N-alkyl substituted alkylenediamine, an N-alkyl substituted polyalkylenepolyamine, an alicyclic polyamine, an aromatic polyamine, an adduct of the polyamine with an alkylene oxide and a

urethane-modified polyamine, the polyamine (iii) is a component added to a dispersion of the swelling inorganic layered compound (ii), a dispersion containing the aqueous polyurethane resin (i), or a dispersion containing the aqueous polyurethane resin (i) and the swelling inorganic layered compound (ii);

the proportion of the acid group of the polyurethane resin (i) relative to the basic nitrogen atom of the polyamine (iii) is 3/1 to 1/2 as an equivalent ratio, and

the acid value of the polyurethane resin (i) is 15 to 60 mgKOH/g, and the amine value of the polyamine (iii) is 200 to 1700 mgKOH/g.

16. (Cancelled)

17. (Currently Amended) A resin composition according to claim 15, wherein the polyurethane resin (i) comprises the residue of the polyisocyanate compound (A), the residue of the polyhydroxyalkanecarboxylic acid (B), and a residue of a polyol compound (C), each of the residues (B) and (C) bonding to the residue of the polyisocyanate compound (A) through a urethane group for forming a prepolymer having an isocyanate group and a carboxyl group, and the residue of the chain-extension agent (D) which bonds to the prepolymer through at least a urea group to form a polyurethane having the carboxyl group, and the carboxylic group of the polyurethane is neutralized with a neutralizing agent;

the polyisocyanate compound (A) contains at least one member selected from the group consisting of an aromatic polyisocyanate, an aliphatic polyisocyanate and an alicyclic polyisocyanate, a xylylene diisocyanate and a hydrogenated xylylene diisocyanate in a proportion of not less than 30% by weight in the polyisocyanate compound; and

the polyol compound (C) contains a polyol component having 2 to 8 carbon atoms in a proportion of not less than 90% by weight in the polyol compound.

18. (Cancelled)

19. (Previously Presented) A resin composition according to claim 15, wherein the swelling inorganic layered compound (ii) comprises at least one member selected from the group consisting of a water-swelling mica and a montmorillonite.

20. **(Previously Presented)** A resin composition according to claim 15, wherein the ratio of the swelling inorganic compound (ii) relative to the polyurethane resin (i) is 1/100 to 200/100 in terms of solid content.

21. **(Previously Presented)** A gas barrier laminated film comprising a base film, and a layer formed on at least one surface of the base film, wherein the layer comprises an aqueous resin composition recited in claim 15.

22. **(Cancelled)**

23. **(Previously Presented)** A resin composition according to claim 1, wherein said polyamine is interposed between layers of the inorganic layered compound.

24. **(New)** A resin composition according to claim 1, wherein the polyamine (iii) comprises a urethane-modified polyamine.

25. **(New)** A resin composition according to claim 15, wherein the polyamine (iii) comprises a urethane-modified polyamine.